

**REMARKS**

Applicant submits this Amendment After Final in reply to the final Office Action dated December 14, 2004.

By this Amendment After Final, Applicant proposes to cancel claim 36, without prejudice or disclaimer, and amend claims 35, 46, 54, and 57. The originally filed specification, drawings, and claims fully support the subject matter of amended claims 35, 46, 54, and 57. No new matter has been introduced.

On page 2 of the final Office Action, claim 46 was rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. While Applicant does not necessarily agree with the rejection, in the interests of expediting the prosecution of this application, Applicant amends claim 46 to remove the objected to terminology. Accordingly, Applicant respectfully requests withdrawal of the Section 112, first paragraph rejection.

On pages 2-5 of the final Office Action, claims 35 and 52 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,786,261 to Tucker ("Tucker"); claims 36-45, 51, and 53 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tucker in view of U.S. Patent No. 5,298,968 to Cheung et al. ("Cheung"), U.S. Patent No. 5,262,841 to Blessner ("Blessner"), and U.S. Patent No. 4,348,111 to Goulas et al. ("Goulas"); claims 47-50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tucker in view of U.S. Patent No. 4,549,809 to Minekane et al. ("Minekane"); and claims 54-59 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tucker in view of U.S. Patent No. 3,804,535 to Rodriguez ("Rodriguez") and U.S. Patent No. 3,787,124 to Lowy et al. ("Lowy"). Applicant has

amended independent claim 35 to substantially include the subject matter of dependent claim 36. Accordingly, because Tucker does not disclose the subject matter now incorporated into claim 35, the Section 102(b) rejection is moot. Specifically, as admitted by the Examiner, Tucker does not disclose or suggest “allowing the scattered component of the light beam to pass around a diaphragm upon which the transmitted component of the light beam impinges.”

With regard to the other Section 103(a) rejections, Applicant respectfully traverses those rejections for at least the reasons as set forth in the following remarks.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103, three basic criteria must be satisfied. First, “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings.” M.P.E.P. § 2142, Original 8th ed., Rev. 2, May 2004, p. 2100-128. Second, “there must be a reasonable expectation of success.” *Id.* Third, “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” *Id.* Furthermore, the teaching or suggestion to make the claimed combination must be found in the prior art, not in Applicants’ disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Additionally, the evidence of a teaching, suggestion, or motivation to combine must be “clear and particular.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). As will be described below, modifying Tucker in the manner set forth in the final Office Action is improper and cannot support a *prima facie* case of obviousness.

By rejecting the subject matter of previously unamended independent claim 35 under 35 U.S.C. §102(b) as being anticipated by Tucker, and only rejecting the subject matter of dependent claims 36-45, 51, and 53 under 35 U.S.C. §103(a), the final Office Action admits that Tucker does not disclose the aspects of the invention set forth in dependent claims 36-45, 51, and 53. Independent claim 35, as currently amended, includes the subject matter of dependent claim 36. In rejecting the subject matter of independent claim 35 and dependent claims 37-45, 51, and 53, page 4 of the final Office Action recites that

Tucker shows separately measuring scattered and transmitted light and using the transmitted light to adjust the intensity of the light beam. The operation of the device is based upon the separate detection of the transmitted and scattered light, and those of ordinary skill in the art could use, and would have recognized that they could use, other arrangements to direct the light from the sample to the appropriate detectors. It is well known in the art that appropriate diaphragms and beam directing mirrors and the like can be used to direct the light in such measurements.

The Office Action then lists Cheung, Blesener, and Goulas as supporting this proposition, as well as allegedly disclosing the various aspects recited in independent claim 35 and dependent claims 37-45, 51, and 53.

As an initial matter, Applicant respectfully traverses these assertions in the final Office Action as to what is allegedly “well known in the art.” Furthermore, the motivation set forth above is not proper, not only because the final Office Action does not set forth in a “clear and particular” manner how the motivation to modify Tucker is set forth in the prior art, but also because Tucker explicitly teaches against the modifications suggested by the Examiner.

One of the purposes of the invention of Tucker is to provide a “smaller, simpler, and more efficient system” for sensing forward or back scattered light by eliminating the

need for “placing light reflectors in the area around the light beam and outwardly thereof in positions to receive the forward scattering light and deflect the same toward the photoreceiving surface of a photosensor such as a photomultiplier located downstream of the light beam and in the optical path of the light beam.” (Col. 1, lines 29-38; and col. 6, lines 10-16 and 21-35). The manner in which Tucker accomplishes this is by placing the photodetecting or photoreceiving surface very close to the sensing zone so as to “reduc[e] the area of photosensitive surface required and increas[e] the solid angle of deflected light sensed by the photosensor.” (Col. 6, lines 24-28).

Independent claim 35, as amended, recites a method including, among other aspects, “allowing the scattered component of the light beam to pass around a diaphragm upon which the transmitted component of the light beam impinges.” There is no motivation to modify Tucker to include a diaphragm around which the scattered component of the light beam is allowed to pass because, among other reasons, it would not further the goal of a “smaller, simpler, and more efficient system.” (Col. 16, lines 10-16).

Moreover, Tucker also specifically teaches against using “a diaphragm upon which the transmitted component of the light beam impinges.” Tucker discloses that “previously proposed optical particle sensing devices mount a light trap downstream from the point where the light impinges upon particles in the fluent material and in front of the photosensor for the purpose of trapping the non-scattered light of the light beam.” (Col. 1, lines 42-47). However, “[o]ne problem or disadvantage incurred with many of the prior devices is the inability of these devices to trap all of the non-scattered light from the light beam.” (Col. 1, lines 50-52). Tucker solves this problem by having the

non-scattered light pass through hole 34 in a photosensor 32 in a manner that “obviates the need for light catching and dissipating tubes or traps as well as the need for light reflectors previously used in optical particle sensing devices.” (Col. 6, lines 16-20). Accordingly, Tucker explicitly rejected the need for light traps and thus, by association, “a diaphragm upon which the transmitted component of the light beam impinges.” For at least this reason, Applicant respectfully requests the allowance of independent claim 35 and its dependent claims.

Independent claims 54 and 57 each recite, among other aspects, “allowing the scattered component of the light beam to pass around a diaphragm upon which the transmitted component of the light beam impinges.” Each of independent claims 54 and 57 are patentable for at least the reasons set forth above with respect to independent claim 35.

Moreover, Applicant further asserts that the final Office Action has not set forth a proper *prima facie* case of how Cheung, Blesener, Goulas, Minekane, Rodriguez, nor Lowy render obvious at least the aforementioned deficiency of Tucker. Accordingly, Applicant respectfully requests the allowance of each of independent claims 35, 54, and 57 and their respective dependent claims.

Applicant further submits that claims 37-53, 55-56, and 58-59 depend from one of independent claims 35, 54, and 57, and are therefore allowable for at least the same reasons that each of those respective independent claims is allowable. In addition, at least some of the dependent claims recite unique combinations that are neither taught nor suggested by the cited references and therefore at least some also are separately patentable.

Applicant respectfully requests that this Amendment After Final under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 35, and 37-59 in condition for allowance. Applicant submits that the proposed amendments of claims 35, 41, 42, 46, 54, and 57 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment After Final should allow for immediate action by the Examiner.

Furthermore, Applicant respectfully points out that the final Office Action by the Examiner presented some new arguments as to the application of the art against Applicant's invention. It is respectfully submitted that the entering of the Amendment After Final would allow the Applicant to reply to the final rejections and place the application in condition for allowance.

Finally, Applicant submits that the entry of the Amendment After Final would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicant submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this Amendment After Final, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

The final Office Action contains characterizations of the claims and the related art with which Applicant does not necessarily agree. Unless expressly noted otherwise,

Applicant declines to subscribe to any statement or characterization in the final Office Action.


In discussing the specification and claims in this Amendment After Final, it is to be understood that Applicant is in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Please grant any extensions of time required to enter this Amendment After Final and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: March 14, 2005

By:   
Michael W. Kim  
Reg. No. 51,880